

ABSTRACT OF THE DISCLOSURE

An airbreathing fuel cell, in which oxygen can be adequately supply to oxygen passage plates to obtain a power generating capacity conformed to a demand, comprises a cell stack formed in the form of a rectangle by stacking a plurality of those unit cells, which comprise a solid polymer electrolyte membrane, an oxygen electrode and a fuel electrode, which are provided on both sides of the solid polymer electrolyte membrane to be opposed to each other, an oxygen passage plate provided adjacent and toward the oxygen electrode, and separator plates provided adjacent and outside the oxygen passage plate and the fuel electrode, and the oxygen passage plate comprises a plurality of opened grooves on a surface thereof opposed to the oxygen electrode, the grooves being opened outside at both ends thereof.